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**B65D 75/36**

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**B8P** PK10
**U1S** S1310

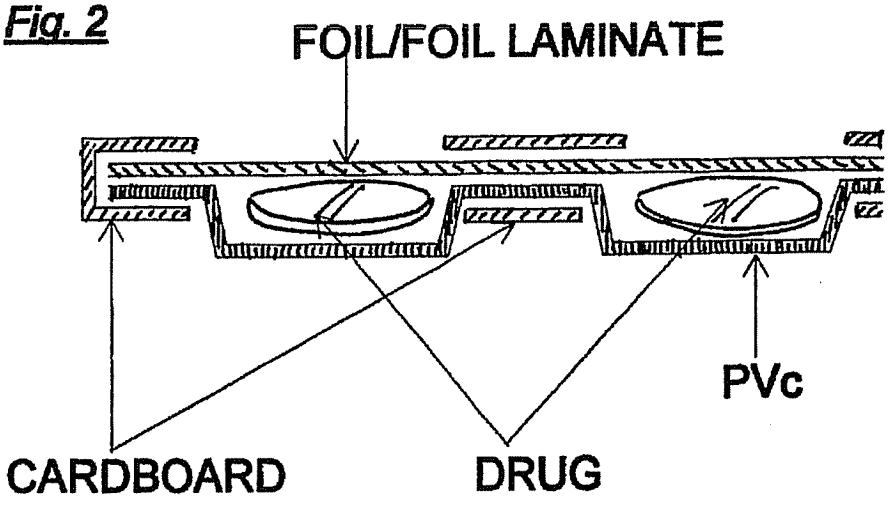
(56) Documents Cited
**GB 2228922 A** **GB 2086855 A** **GB 1601885 A**
**US 4802584 A** **US 3856144 A** **US 3780856 A**
**US 3630346 A**

(58) Field of Search
UK CL (Edition M ) **B8P PK10**
INT CL[5] **B65D 75/36**
**Online database:W.P.I.**

(54) **Blister pack**

(57) A Self-sealing blister pack for prescription drugs for use in the dispensary provides a series of separate compartments or blisters into which the pharmacist can put medicines thus splitting the total prescription, into separate doses for example. The pack can then be assembled by hand to form a fully sealed pack using adhesive previously applied, sealing around the perimeter of each blister which in turn are sealed within an outer pack. The blisters will be visible once the pack is sealed as they protrude through apertures in the outer pack, the contents of the blisters are dispensed by the patient through similar apertures on the reverse of the pack aligned with each blister. The sealed pack may be further folded temporarily, and the outside of the pack can be printed or labelled with information or instructions for use of the contents.

*Fig. 2*




GB 2 277 920 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

*Fig. 1*

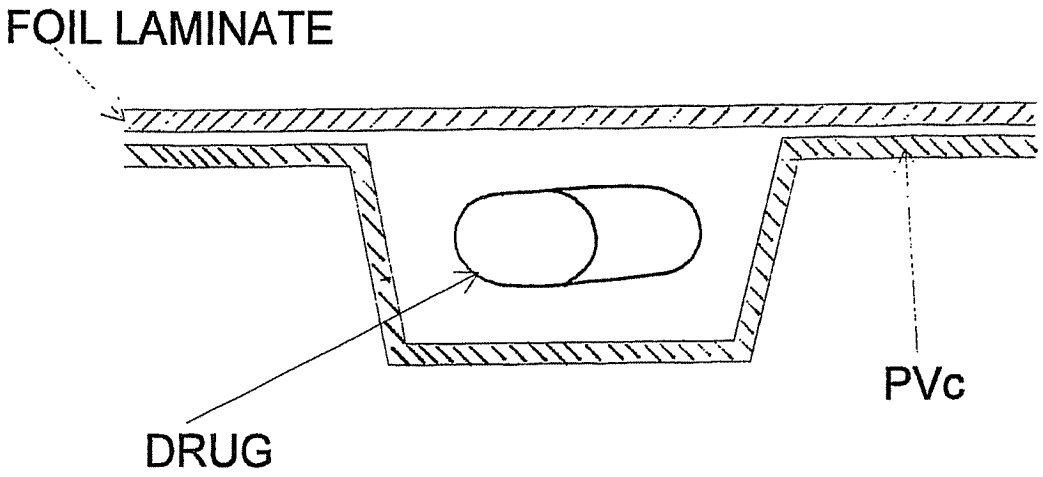

FOIL LAMINATE
PVc
DRUG

*Fig. 2*

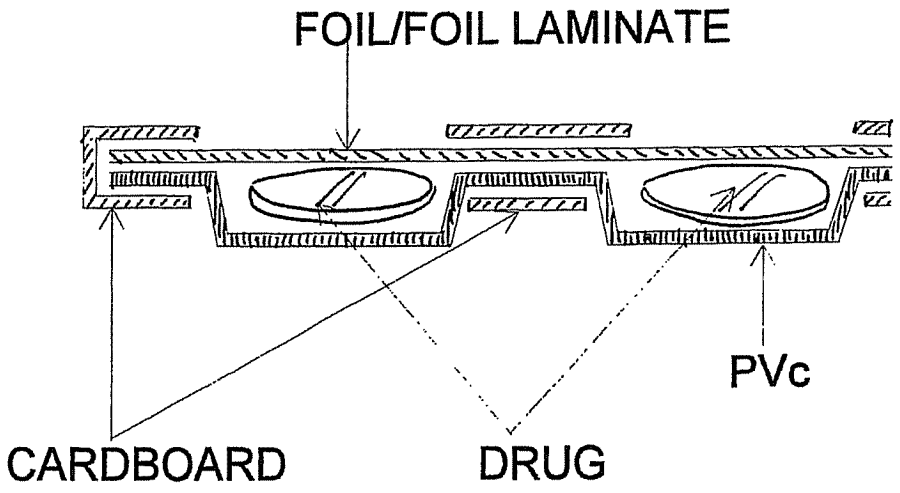

FOIL/FOIL LAMINATE
PVc
CARDBOARD
DRUG

fIG 3

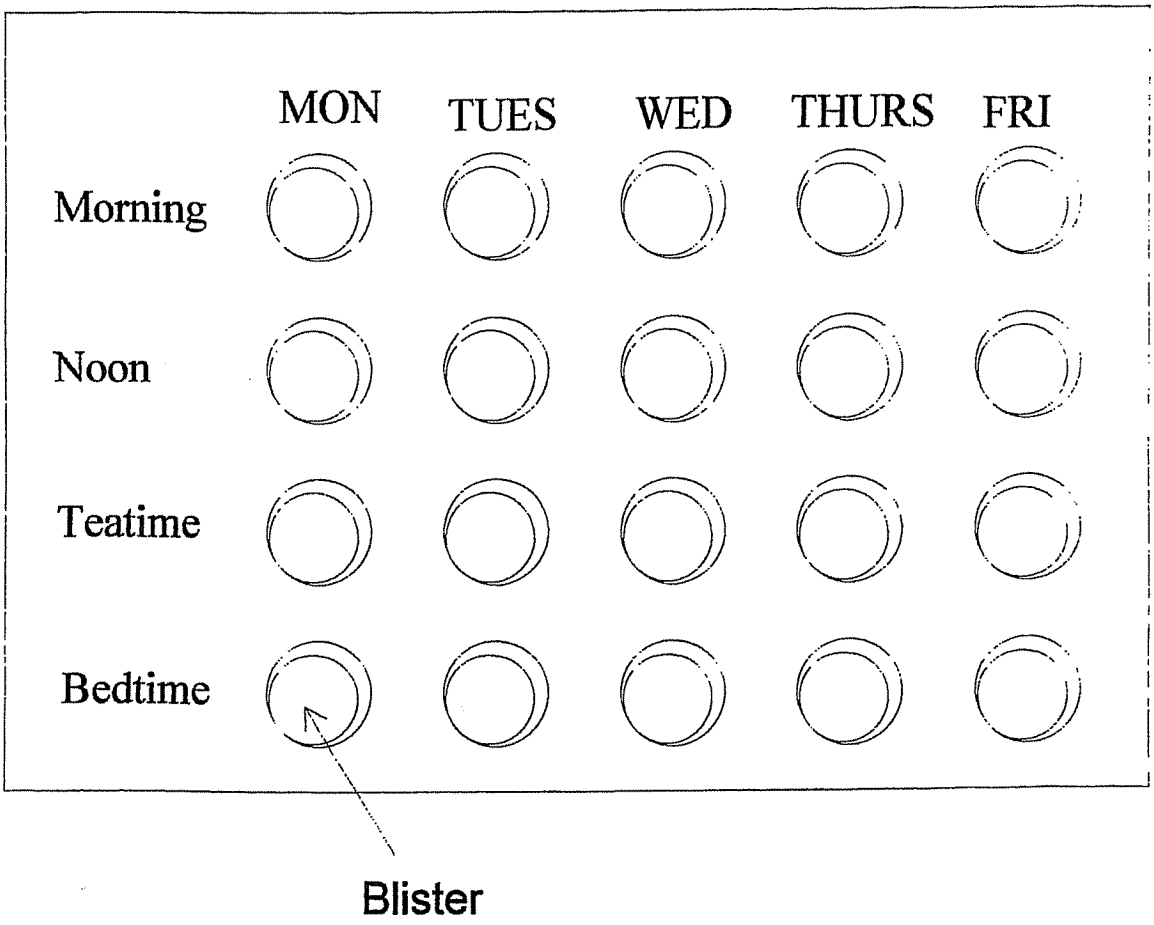
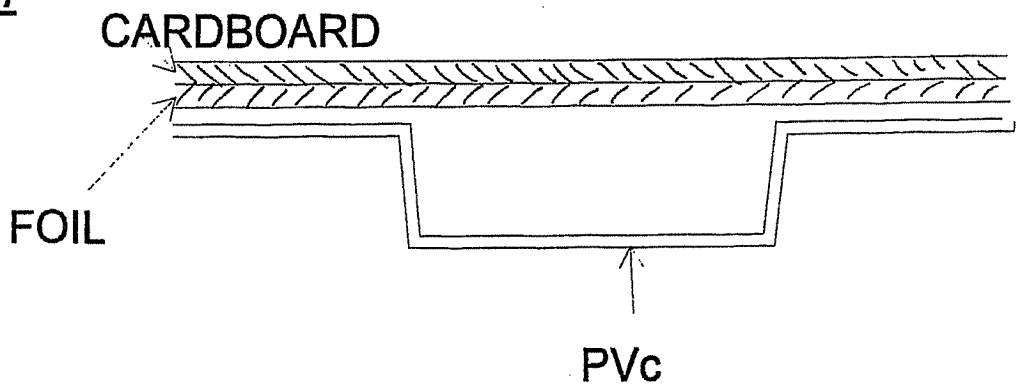

MON
TUES
WED
THURS
FRI
Morning
Noon
Teatime
Bedtime
Blister

fIG.4


CARDBOARD
FOIL
PVc

# SELF SEALING DISPENSARY BLISTER-PACK FOR PRESCRIPTION DRUGS.

This invention relates to a self, or cold, sealing blister-pack for the packaging of prescription drugs in the pharmacy.

Dispensing chemists currently pack individual prescription drugs into bottles or leave them in the original manufacturers packaging, for dispensing to patients with a valid prescription sheet from a GP or hospital.

It is desirable for some patients, particularly those taking a variety of medicines, or the elderly or confused, to offer packaging that segregates drugs into individual doses, and furthermore, packs a number of drugs together in the form of separate dose times each containing all required drugs.

A pack offering this facility must have separate 'compartments' into which all drugs for a specific dose can be packed (i.e. Monday, breakfast-time) and must also have sufficient of these compartments to cover all doses within the course of treatment (i.e., a course of treatment that lasts one week with 4 doses per day will require 28 compartments)

To offer this type of pack to individual patients taking a number of drugs together requires that assembly filling of the pack must be done in the pharmacy, prompted by the prescription form. Therefore any pack offering these features must also be easily filled and assembled by the pharmacist.

This invention avoids the use of any mechanical process within the pharmacy, for filling and sealing and provides discreet compartments in the form of pouches, or blisters, made from pvc or similar film, vacuum formed to the required size enclosed with a foil laminate(Fig 1).
a number of these blisters are formed together from the same piece of film consistent with the number of doses required. This gives a set of blisters joined together.

Drugs are inserted into each blister which are sealed with the foil and a full course of blisters is held together within a catch card (Fig 2),of cardboard or similar, through which the blisters protrude (Figs 2 and 3), onto which can be printed or labelled dosage instructions and medication details etc (Fig 3). Up to 4 bonds are required and can be provided by the invention, these are PVc to foil laminate, PVc to cardboard, Foil laminate to cardboard, and cardboard to cardboard.

...cont.

In some cases the foil is bonded onto the PVc,(Fig 1), and in others it may be necessary to bond the foil to the board and the board to the PVc,(Fig 4), in both case each pouch is fully sealed around its perimeter

All bonding is permanent and achieved using a cohesive adhesive requiring only contact an manual pressure to activate.

Once packed the drugs are delivered by 'squashing the PVc blister, thus forcing the drug(s) through the foil laminate and through the reverse of the pack.

Currently Acrylic based adhesive is used for all these bonds, although other cohesive adhesives can be employed providing they offer a permanent seal without the aid of heat, or mechanical pressure, for activation.

The size and design of the pack can be varied according to the required size and shape of each blister compartment and the number of doses in the course of treatment.

The cardboard catchcard comprises of a top and bottom piece each piece has apertures that coincide with the different pouches or blisters so that each blister can protrude through a different aperture on the top piece and the drug is delivered through a similar aperture in the bottom piece. The two pieces can be joined at one edge and folded together, i.e. like a greetings card, thus encapsulating the blisters, or alternatively they can be separate pieces bonded to the top and bottom of the blisters.

The invention allows for the packaging of all medicines and drugs arranged either in specific dose time form, or generally to allow alternative labelling such as 'take as required' and may contain any number of blisters, units of medicine, or varieties of medicine as required by the patient, General Practitioner or Pharmacist.

CLAIMS

1) An pack that can be assembled to form a fully sealed pack, providing separated and discreet blisters for a number of doses of medication, and is sealed using contact and manual pressure only on specific areas of the pack to which a cohesive adhesive has been previously applied, without requiring heat, moisture or any agent, co-agent or reagent not present in the adhesive as previously applied to the pack.

2) A pack as claimed in claim 1 wherein the outside of the pack is printed or labelled with information relevant to the contents, the method of dosage, the patient or prescribing doctor.

3) A Pack as claimed in any preceding claim that seals each blister totally around its perimeter so that opening any blister does not effect the integrity of the remaining, un-opened blisters,

4) A pack as claimed in any preceding claim that allows one or more variety of medication or drug be packed into each blister.

5) A pack as claimed in any previous claim that allows the contents of each blister to be dispensed separately by applying pressure to the blister, thus rupturing the seal on the revers.

6) A Pack as claimed in any previous claim that comprises of three or more components principally, the blister, the blister seal and the outer pack encapsulating a number of sealed blisters, each component being made from any manufactured material consistent with the safe packaging of pharmaceuticals

| Patents Act 1977<br>Examiner's report to the Comptroller under Section 17 (the Search report) -4- | Application number<br>GB 9218930.7 |
|---|---|
| **Relevant Technical Fields**<br><br>(i) UK Cl (Ed.M) B8P (PK10)<br><br>(ii) Int Cl (Ed.5) B65D 75/36 | Search Examiner<br>MIKE HENDERSON<br><br>Date of completion of Search<br>31 JANUARY 1994 |
| **Databases** (see below)<br>(i) UK Patent Office collections of GB, EP, WO and US patent specifications.<br><br>(ii) ONLINE DATABASE: WPI | Documents considered relevant following a search in respect of Claims :-<br>1-6 |

**Categories of documents**

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| Category | Identity of document and relevant passages | | Relevant to claim(s) |
|---|---|---|---|
| X | GB 2228922 A | (GORDON ET AL) whole specification relevant) | 1-6 |
| X | GB 2086855 A | (STERWIN AG) whole specification relevant | 1-6 |
| X | GB 1601885 | (STERWIN AG) whole specification relevant | 1-6 |
| X | US 4802584 | (HARRISON ET AL) whole specification relevant | 1-5 |
| X | US 3856144 | (KELLY) whole specification relevant | 1-5 |
| X | US 3780856 | (BRAVERMAN) whole specification relevant | 1-5 |
| X | US 3630346 | (BURNSIDE) whole specification relevant | 1-5 |

**Databases:** The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).